



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,657	08/07/2006	Glen J. Slade	34-134	9244
23117 7590 12/09/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
WITZENBURG, BRUCE A				
ART UNIT		PAPER NUMBER		
2166				
MAIL DATE		DELIVERY MODE		
12/09/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,657

Applicant(s)

SLADE, GLEN J.

Examiner

BRUCE A. WITZENBURG

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64-134 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64-134 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 07 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 07/22/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. With respect to the amendments filed 8/18/2008, claims 65-134 remain pending in this application.

Claim Objections

2. The following are objected to for lack of antecedent basis

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 104-114 and 133 are directed towards nonfunctional descriptive material and therefore do not constitute patentable subject matter. Because Claims 104-114 and 133 are directed towards a storage device carrying data which does not have a functional relationship with any existing software or other step the system is considered non-statutory. (See MPEP 2106.01 paragraphs 1-4)
4. Claim 125 does not necessarily take part on a computer readable storage medium as the term "computer readable data-carrier" potentially refers to signals or propagation media. A program must be stored on a computer readable storage medium and executed by a computer (See MPEP 2106.01 paragraphs 1&2).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 126-132 and 134 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically the phrase "determinable" seems to pertain to error checking within the file index. Because the specification does not describe any form of error checking the phrase "ensuring that an indication of the second selected location is determinable from the file index" is believed to pertain to new matter.

The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

6. Regarding claim 107, claim 104 from which claim 107 depends from discloses at least "encrypting file indexes." Because claim 104 carries out "at least one of the following steps" within claim 107, claim 107 fails to further limit claim 104 from which it depends and thus is rejected under 35 U.S.C. 112 4th paragraph.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 64-73; 75-90; 98-111; 114-115; 122-123; 125-134 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orrin (US 6,011,849) hereafter Orrin, and further in view of Wang et al. (US 4,587,633) Hereafter "Wang"

Regarding claim 64, Orrin discloses a method of storing a data set on a storage device carrying a file of random data comprising the steps of: selecting, based upon a user input passphrase, a first location within the file of random data for storing data; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8 Note that multiple locations are selected including a first and second location for data) selecting a second location within the file of random data for storing additional data; encrypting the additional data; (Col 5, line 57- Col 6, line 8) storing the encrypted additional data at the second selected location in the file of random data; (Col 5, line 57- Col 6, line 8). Orrin does not disclose data being in a file system including an index, however file systems for tracking and storing multiple files are well known in the art at the time of the invention as demonstrated by Wang (Col 11,

lines 50-68) and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Orrin with the teachings of Wang to encrypt and store multiple files within a file system in order to expand storage capabilities while remaining hidden.

Regarding claim 65 Orrin discloses a method of operating a computer to store a data set on a storage device carrying a file of random data, the method comprising the steps of: selecting, in dependence on a user input passphrase, a first location within the file of random data for storing data; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8 Note that multiple locations are selected including a first and second location for data) selecting a second location within the file of random data for storing additional data; (Col 5, line 57- Col 6, line 8)

encrypting the additional data; (Col 5, line 57- Col 6, line 8)

storing the encrypted additional data at the second selected location in the file of random data; (Col 5, line 57- Col 6, line 8) Orrin does not disclose data being in a file system including an index, however file systems for tracking and storing multiple files are well known in the art at the time of the invention as demonstrated by Wang (Col 11, lines 50-68) and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Orrin with the teachings of Wang to encrypt and store multiple files within a file system in order to expand storage capabilities while remaining hidden.

Regarding claim 66, Orrin as modified discloses the step of selecting the first location for storing the file index comprising the step of selecting the first location as a start point of the file index. (Abs; Col 5, line 57- Col 6, line 8)

Regarding claim 67, claim 67 is rejected for substantially the same reason as claim 64 above

Regarding claim 68, Orrin as modified discloses the file index being stored at the first location within the file of random data by processing random data within the file of random data using the encrypted file index. (Abs)

Regarding claim 69, claim 69 is rejected for substantially the same reason as claim 64 above.

Regarding claim 70, Orrin as modified discloses the data set being stored at the second selected location in the file of random data by processing random data within the random data using the encrypted data set. (Abs; Col 5, line 57- Col 6, line 8)

Regarding claim 71 Orrin as modified discloses a step of using the user input passphrase for generating a key for encrypting the file index. (Col 4, lines 7-8)

Regarding claim 72, claim 72 is rejected for substantially the same reason as claim 71 above.

Regarding claim 73, claim 73 is rejected for substantially the same reason as claim 64 above.

Regarding claim 75, claim 75 is rejected for substantially the same reason as claim 64 above.

Regarding claim 76, claim 76 is rejected for substantially the same reason as claim 64 above.

Regarding claim 77, Orrin as modified discloses a common key being used for encrypting the data set and for encrypting the file index. (Abs) note that data in this case includes the file system and files and would use the same key for encrypting

Regarding claim 78, claim 78 is rejected for substantially the same reason as claim 77 above. Additionally note that the filesystem is capable of storing any amount of data.

Regarding claim 79. Orrin as modified discloses a respective location for each data set being selected, each data set being encrypted and stored at the respective location,

(Orrin, Abs; Col 5, line 57- Col 6, line 8) and respective entries being added to the file index. (Wang, Col 11, lines 50-68)

Regarding claim 80, Orrin does not disclose the step of storing further file indexes within the file of random data, each of which indexes is associated with a respective passphrase and each of which indexes is encrypted and is stored at a location selected in dependence on the respective passphrase, however it would have been obvious to one of ordinary skill in the art at the time of the invention to use a further encryption key to provide additional data storage with different access privileges. It should be noted the above combination is the combination of Orrin as modified with itself.

Regarding claim 81, claim 81 is rejected for substantially the same reason as claim 80 above.

Regarding claim 82, claim 82 is rejected for substantially the same reason as claim 80 above. Additionally it should be noted that a primary user or administrator of the system would know the existing passphrases.

Regarding claim 83, claim 83 is rejected for substantially the same reason as claim 82 above.

Regarding claim 84, claim 84 is rejected for substantially the same reason as claim 80 above. Additionally it should be noted that a secondary user of the system would not necessarily know all of the existing passphrases.

Regarding claim 85, claim 85 is rejected for substantially the same reason as claim 80 above.

Regarding claim 86, Orrin discloses storing data on a storage device carrying a plurality of files of random data. (Col 4, line 64 – Col 5, line 10)

Regarding claim 87, Orrin as modified discloses the file index comprising a message authentication code. (Col 7, lines 29 - 41)

Regarding claim 88, claim 88 is rejected for substantially the same reason as claim 87 above.

Regarding claim 89, claim 89 is rejected for substantially the same reason as claim 87 above.

Regarding claim 90, Orrin discloses pre-processing the data set prior to encryption. (Col 6, lines 19-20. Note characters are selected before encryption begins)

Regarding claim 98, Orrin as modified discloses the step of deleting a data set stored on a storage device. (Col 7, lines 19-28)

Regarding claim 99 Orrin as modified discloses a step of removing a respective entry from the file index. (Col 7, lines 19-28)

Regarding claim 100, Orrin as modified discloses the step of deleting a data set comprises a step of overwriting the data set with random data as well as removing the entry from the file index. (Col 7, lines 19-28)

Regarding claim 101, claim 101 is rejected for substantially the same reason as claim 98 above.

Regarding claim 102, claim 102 is rejected for substantially the same reason as claim 100 above.

Regarding claim 103 claim 103 is rejected for substantially the same reason as claim 100 above.

Regarding claim 104, claim 104 is rejected for substantially the same reason as claim 64 above.

Regarding claim 105, claim 105 is rejected for substantially the same reason as claim 104 above.

Regarding claim 106, claim 106 is rejected for substantially the same reason as claim 104 above.

Regarding claim 107, claim 107 is rejected for substantially the same reason as claim 104 above. (Note that claim 104 does carry out "at least one of the following steps")

Regarding claim 108, Orrin as modified discloses carrying of a conventional file allocation table (Wang Col 11, lines 50-68, Note that file indexes generally show what space is allocated to them and additionally note that file allocation tables were well known in the art at the time of the invention and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teachings to use a file allocation table to manage a multiple file encryption system.)

Regarding claim 109, Orrin as modified discloses a portion of Read Only Memory (ROM). (Col 8, lines 41-44 Note that CD ROMs are read-only)

Regarding claim 110, claim 110 is rejected for substantially the same reason as claim 109 above. (Note that Orrin as modified storing information on the CD-ROM includes file indexes and all other information as shown previously)

Regarding claim 111, Orrin discloses a removable storage device. (Col 8, lines 41-44)

Regarding claim 114, claim 114 is rejected for substantially the same reason as claim 64 above. Note the device of Orrin as modified comes with the software described.

Regarding claim 115, claim 115 is rejected for substantially the same reason as claim 64 above.

Regarding claim 122, Orrin as modified discloses a method of extracting a data set stored on a storage device carrying a file of random data and a data set being stored in the file of random data, the method of extracting data comprising the steps of:
accepting a user input passphrase; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8 Note that multiple locations are selected including a first and second location for data)
determining the location for a file index indicated by the passphrase; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8)
decrypting the file index; ((Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8 Note that the implementation concerns both encryption and decryption)

identifying the location of the requested data set from the file index; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8)

and decrypting the data set. (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8)

Orrin does not disclose data being in a file system including an index, however file systems for tracking and storing multiple files are well known in the art at the time of the invention as demonstrated by Wang (Col 11, lines 50-68) and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Orrin with the teachings of Wang to encrypt and store multiple files within a file system in order to expand storage capabilities while remaining hidden.

Regarding claim 123, claim 123 is rejected for substantially the same reason as claim 122 above.

Regarding claim 125, Orrin discloses a computer readable data carrier, carrying a computer program comprising code portions which when loaded and run on a computer cause the computer to carry out the following steps:

selecting, based upon a user input passphrase, a first location within the file of random data for storing data; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8 Note that multiple locations are selected including a first and second location for data)

selecting a second location within the file of random data for storing additional data;

encrypting the additional data; (Col 5, line 57- Col 6, line 8)

storing the encrypted additional data at the second selected location in the file of random data; (Col 5, line 57- Col 6, line 8). Orrin does not disclose data being in a file system including an index, however file systems for tracking and storing multiple files are well known in the art at the time of the invention as demonstrated by Wang (Col 11, lines 50-68) and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Orrin with the teachings of Wang to encrypt and store multiple files within a file system in order to expand storage capabilities while remaining hidden.

Regarding claim 126 Orrin discloses a method of storing a data set on a storage device having a data storage area initialized with random data comprising the steps of: selecting a first location within the data storage area initialized with random data for storing a data; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8 Note that multiple locations are selected including a first and second location for data) selecting a second location within the data storage area initialized with random data for storing additional data; (Col 5, line 57- Col 6, line 8) encrypting the additional data; (Col 5, line 57- Col 6, line 8) storing the encrypted additional data at the second selected location in the data storage area initialized with random data; (Col 5, line 57- Col 6, line 8) encrypting the data; (Col 5, line 57- Col 6, line 8) and storing the encrypted data at the first selected location in the data storage area initialized with random data. (Col 5, line 57- Col 6, line 8)

Orrin does not disclose data being in a file system including an index, however file systems for tracking and storing multiple files are well known in the art at the time of the invention as demonstrated by Wang (Col 11, lines 50-68) and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Orrin with the teachings of Wang to encrypt and store multiple files within a file system in order to expand storage capabilities while remaining hidden.

Regarding claim 127, claim 127 is rejected for substantially the same reason as claim 126. Note that file indexes are specifically designed to indicate the retrievable location of the data within them and are updated as such to reflect any modifications in such data.

Regarding claim 128, claim 128 is rejected for substantially the same reason as claim 126 above.

Regarding claim 129, claim 129 is rejected for substantially the same reasons as claims 126 and 71 above.

Regarding claim 130, claim 130 is rejected for substantially the same reason as claim 129 above. Note that at least separate files such as those disclosed on Col 5, lines 1-3 on the same media would be capable of separate steganographic data storage within the same "data storage area"

Regarding claim 131, claim 131 is rejected for substantially the same reason as claim 126 above

Regarding claim 132, claim 132 is rejected for substantially the same reason as claim 126 above.

Regarding claim 133, claim 133 is rejected for substantially the same reason as claim 64 above.

Regarding claim 134, claim 134 is rejected for substantially the same reason as claim 126 above.

8. Claim 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orrin, in view of Wang and in further view of Coppersmith et al. (US 5,454,039) hereafter Coppersmith

Regarding claim 74, Orrin as modified discloses inputting a key for use in encryption, however he does not disclose using a hashing function on user input to generate a key. Coppersmith discloses using a hashing function based on a user input password (Col 4, lines 2-22; Col 10, lines 49-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Orrin as modified with the

teachings of Coppersmith in order to provide encryption security based upon a pseudorandom hashed number instead of a base password to provide a more stable encryption system.

9. Claims 91-97; 112-113; 116-121; 124 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orrin, in view of Wang and in further view of "StegFS: A Steganographic File System" HweeHwa Pang, Kian-Lee Tan, Xuan Zhou, hereafter Pang

Regarding claim 91, Orrin as modified does not disclose the step of presenting a user with an indication of the location within the file of random data that will be selected for the file index when using a predetermined passphrase, however Pang discloses presenting a user with an indication of the location within the file of random data that will be selected for the file index when using a predetermined passphrase (Pg 660, Right col, line 33 – Pg 661, Left col, line 36) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Pang with the teachings of Orrin as modified to support multiple users within the steganographic file system.

Regarding claim 92, claim 92 is rejected for substantially the same reason as claim 91 above

Regarding claim 93, claim 93 is rejected for substantially the same reason as claim 91 above

Regarding claim 94, claim 94 is rejected for substantially the same reason as claim 91 above

Regarding claim 95, claim 95 is rejected for substantially the same reason as claim 91 above

Regarding claim 96, claim 96 is rejected for substantially the same reason as claim 91 above

Regarding claim 97, claim 97 is rejected for substantially the same reason as claim 91 above

Regarding claim 112, Orrin does not disclose a storage device having a unique serial number, however Pang discloses a randomly generated key. (Pg 660, Left col, lines 33-47) Additionally, serial numbers are well known in the art at the time of the invention and it would have been obvious to one of ordinary skill in the art to use a serial number to help identify a hardware or other physical device of Orrin as modified.

Art Unit: 2166

Regarding claim 113, Orrin does not disclose a storage device which carries a unique hard coded identifier which is used in at least one of the encryption and decryption process, however Pang discloses a storage device carrying a unique identifier (Pg 660, Right col, lines 33-47)

Regarding claim 116, claim 116 is rejected for substantially the same reason as claim 91 above

Regarding claim 117, claim 117 is rejected for substantially the same reason as claim 91 above

Regarding claim 118, claim 118 is rejected for substantially the same reason as claim 91 above

Regarding claim 119, claim 119 is rejected for substantially the same reason as claim 91 above

Regarding claim 120, claim 120 is rejected for substantially the same reason as claim 91 above

Regarding claim 121, claim 121 is rejected for substantially the same reason as claim 91 above

Regarding claim 124, Orrin discloses a method of storing a data set on a storage device carrying a file of random data comprising the steps of: selecting, in dependence on a user input passphrase, a first location within the file of random data for storing a file index; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8 Note that multiple locations are selected including a first and second location for data) selecting a second location within the file of random data for storing the data set; (Abs, lines 5-8; Col 4, lines 7-8; Col 5, line 57 - Col 6, line 8 Note that multiple locations are selected including a first and second location for data) encrypting the data set; (Col 5, line 57- Col 6, line 8) storing the data set at the second selected location in the file of random data; (Col 5, line 57- Col 6, line 8)

Orrin does not disclose data being in a file system including an index, however file systems for tracking and storing multiple files are well known in the art at the time of the invention as demonstrated by Wang (Col 11, lines 50-68) and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Orrin with the teachings of Wang to encrypt and store multiple files within a file system in order to expand storage capabilities while remaining hidden.

Orrin also does not disclose giving an indication of the location within the file of random data that will be selected, however Pang discloses giving such an indication. (Pg 660, Right col, line 33 – Pg 661, Left col, line 36) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Pang with

the teachings of Orrin as modified to support multiple users within the steganographic file system.

Response to Arguments

With specific reference to applicant's statement that Orrin recognizes steganography, is only capable of storage of a relatively small amount of data, the examiner would like to make of record that nowhere in the instant application is claimed the physical amount of data capable of being stored. Additionally the cited portions of Orrin are within the background of the invention and provide the problems to be overcome, not problems within the implementation of Orrin.

Regarding applicant's argument that "using a file index in Orrin makes no sense. The location of data in Orrin is determined by a key. If data to be stored in Orrin included a file index this would also be broken down by the same encoding process and stored bit wise in multiple locations. This would serve no useful purpose until all the data was decoded and decrypted. This is because up until that point, all the data storage locations would be determined by the overall key. There would be no individually accessible file index which could be decrypted and decoded, and similarly no individually accessible items of data which could be accessed." The argument is considered but is not deemed to be persuasive.

The implementation of a key still provides a start point providing an ideal location for a file index when used in the disclosed combination of Orrin with the filesystem of Wang. The entirety of the file index and files indexed by that file index in this case form the block to be encrypted. File indexes hold data disclosing the starting and ending byte of data for each file they index, while it is true the location of the file itself would need to be decoded based upon both the key and the file index, it is untrue the entirety of the data would need to be decoded and decrypted. The key already uses a function to determine the next location and could be used to find location x (where x is the starting location of the file indexed by the file system) simply by stepping through the equation to the given location. No data would need to be decoded or decrypted until the start of the given file for exactly this reason.

In addition the steps given "to arrive at the subject matter claimed herein" by the applicant are for the above reasons a gross misrepresentation of the combination of Orrin and Wang. In fact the key already determines not only two locations, but a location for each byte. The block of data (in this case a block containing the filesystem of Wang) is encrypted by finding the start point of the file index via the key which is then written in its entirety and then finding the start location for the block of files indexed by the file index and writing those files.

When the above combination is made it is clear to see – because file indexes are nearly always at the front of the data (this fact was even admitted by applicant to be “the

natural thing to do" within remarks filed 07/21/2008 line 16-17) they index the passphrase (key insertion by the user of Col 4, lines 3-20) does determine and locate the file index which is at a location made variable by the key itself.

As noted above nowhere does the instant application make a claim as to the physical amount of data being stored and for that and the above mentioned reasons applicant's argument that:

"Thus, the skilled person could in no way whatsoever, without invention, arrive at the present invention by starting at Orrin. It is only by making use of hindsight that one could even begin to put together the series of steps mentioned above."

Is deemed to not be persuasive.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRUCE A. WITZENBURG whose telephone number is (571)270-1908. The examiner can normally be reached on M-F 9:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bruce A Witzenburg/

Examiner, Art Unit 2166

/Etienne P LeRoux/

Primary Examiner, Art Unit 2161